IN THE SPECIFICATION

Add the following new paragraph after the last line of page 8:

[1] FIGURE 14. FIGURE 14 shows the embodiment of the present invention wherein a an array of the Peltier devices in an implantable subdural grid adjacent to recording electrodes.

Designate the last paragraph of page 20 as paragraph [2] and replace the same with the following amended paragraph:

[2] Ultimately, it will be necessary to optimize heat sinks to fully exploit the potential benefits of these small cooling devices. While it is unrealistic to expect that totally implantable Peltier devices will soon be used for the chronic therapy of focal epilepsy, it should be possible to develop implantable subdural grids with an array of Peltier devices adjacent to recording electrodes as shown in FIGURE 14. In FIGURE 14, the array is shown generally comprising many individual Peltier devices 100 (each including a thermocouple and monopolar EEG electrode) located on a heat pipe substrate 102. A series of leads 104 run to a DC power source (not shown) for individual activation, while a corresponding lead from each device converges on the other pole 106 of the power supply. These might be helpful during invasive mapping, in anticipation of cortical resection, since rapid seizure suppression by focal cooling would confirm the site of origin of seizures. There are situations when a cortical abnormality identified by imaging does not accurately predict the actual origin of epileptic discharges, so temporary abolition of seizures by cooling could provide valuable localizing information (22). Temporary, focal cooling would also enable us to predict the deficits expected from resecting that portion of the cortex. Both of these uses would guide the location and extent of more conventional

cortical resections for epilepsy, an important, and presently unmet, need in epilepsy surgery.